



EXTender™ 4000

Remote client device for single-users over IP networks

Designed for enterprises and call centers looking to extend corporate voice systems to teleworkers and home-based call center agents, MCK's EXTender 4000 is a remote client device that supports seamless remote access to corporate PBX/KTS systems and associated applications.

Increases the effectiveness of telework initiatives

Extends corporate PBX functionality and applications over IP networks

Reduces communication costs

Extends the life of the corporate PBX/KTS

Ensures superior voice quality

Reduces IT staff time

Leverages your legacy PBX/KTS investments towards convergence

Increase the effectiveness of your telework initiatives

As more and more companies realize the benefits of teleworking, many are challenged to integrate remote workers' home offices with critical business systems like corporate voice and data networks. To be truly productive, teleworkers need home-based access to critical network resources, including a high-speed data connection and a feature-rich telephone system. MCK's EXTender family of products address the needs of teleworkers, empowering them with easy and convenient access to all the same telephony features available at a corporate office or central call center, regardless of their geographic location. By enabling transparent access to home office workers through your main phone number, customers will appreciate how easy it is to communicate with your organization. Teleworkers can work more efficiently and productively with seamless access to the corporate voice network from any location.

Designed for single-users over IP-based networks, MCK's EXTender 4000 is a remote client device that supports seamless remote access to a corporate voice network and associated applications and connects to a digital deskset. By transmitting voice traffic and signaling over a managed IP network back to one of MCK's PBXgateways® in your corporate office, the EXTender 4000 allows voice traffic to be seamlessly carried over an existing data network. The EXTender 4000 allows simultaneous access to both voice and data in one solution.

Reduces communication costs

Telecommunications costs fall by an average of 30% when users are administered from a single location versus multiple platforms. Communications savings are also realized from the consolidation of long distance calling through the corporate voice network and dialing plan.

Extends the life of the corporate PBX/KTS

The typical PBX is underutilized by as much as 50%*. In addition, many PBX/KTS systems are being replaced after only 4 to 5 years, well before their 12 year lifecycle. MCK's teleworking solutions allow enterprises and call centers to extend the life of their existing PBX/KTS thereby reducing telecom costs by amortizing the investment over a greater number of years.

*Source: Sage Research



Ensures superior voice quality

The EXTender 4000 uses MCK's Remote Voice Protocol over IP (RVPoIP) to convert digital voice and phone signaling into highly efficient IP data packets, which can then be transmitted over any TCP/IP network. The EXTender 4000 facilitates Quality of Service using Diffserv and IP Precedence packet tagging to enable routers to be configured to prioritize voice traffic. Additionally, the EXTender 4000 features sophisticated echo cancellation and noise detection algorithms which help to ensure superior voice quality.

Reduces IT staff time

All of the EXTender 4000's configurations, management, administrative and diagnostic functions are managed centrally via the PBXgateway in your corporate office. This ease and flexibility allows you to further reduce costs by maximizing valuable IT resources.

Leverages your legacy PBX/KTS investments towards convergence

MCK is committed to supporting converged communications through leveraging your legacy investment and eliminating the need for expensive and disruptive upgrades. The EXTender 4000 delivers seamless access to both voice and data networks over a single packet network connection to the corporate office, further reducing your cost structure and ensuring the effectiveness and efficiency of your teleworking initiatives. What's more, the EXTender 4000 requires no new investments in IP phonesets, reducing your total cost of ownership and eliminating the need for additional user training.



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Technical Specifications - EXTender™ 4000

PBX/KTS Compatibility

The EXTender 4000 supports leading PBX protocols including:

- Alcatel: 4400 and 4200
- Avaya™: DEFINITY® ECS (all G3 releases), MERLIN MAGIX™, Communication Manager, ECLIPS Media Servers and Gateways (digital phones only)
- Ericsson: MD110
- NEC: NEAX2000™, NEAX2400™, NEAX Express, Electra Elite and i-Series 28i, 124i, 124ie, 384i and 704i
- Nortel: BCM, Meridian® and Norstar®
- Panasonic: DBS 576, DBS 576HD, KX-TDA100 and KX-TDA200
- Toshiba: Strata DK and CTX (digital phones only)

System Details

Dimensions

- Size: 6.3" x 5.35" x 1.35" (160mm x 136mm x 34.25mm)
- Weight: 0.6 lb (0.3 kg)

Operating Environment

- Temperature: 32°-130°F (0°-55°C)
- Relative humidity: 5 to 95% (non-condensing)

Key Features

- Auto Connect Mode
- Comfort Noise Generation
- Dynamic and Static IP Addressing
- Support for IP Precedence and DiffServ QoS mechanisms

General Set-Up Guidelines

- The EXTender 4000 must be terminated by a PBXgateway I or II at the corporate office.
- The EXTender 4000 works over any managed IP network with a router, DSL modem, or other remote access device.

- Second 10Base-T Ethernet port available for PC connection to the EXTender 4000.
- Network must be configured to provide Quality of Service (QoS) support in order to guarantee voice quality.
- Minimal setup programming required, accomplished via Telnet, inband RVP or phone menus at teleworker's location.

Software Support

- TCP/IP protocol support for IP traffic and management access
- RVPoIP uses UDP/IP protocol for voice transmission

Connectors included on unit

- One RJ-45 port for digital telephone set
- One RJ-45 10Base-T Ethernet for PC connection
- One RJ-45 10Base-T Ethernet for WAN connection
- One power supply

Voice Protocols

- Choice of voice compression algorithms: G.729A (8 kbps), G.726 (24 or 32 kbps ADPCM), G.711 (64 kbps PCM)
- G.165 echo canceller software, with MCK proprietary double-talk detection enhancement
- Voice packets are tagged for network traffic prioritization using IP Precedence or DiffServ

Hardware

- Form Factor: Small footprint: desktop or wall mountable unit
- Other Components: Motorola 68EN302 processor, 4 MB flash memory, DSP Analog Devices 2185 (52 MIPS)

Power Supply

- External adapter (included)
- Line voltage: 120 VAC
- Voltage requirement: 12 VDC
- Power supply: 800 mA
- Maximum power draw: 16 Watts

Network Management

- Telnet, inband RVP, SNMP, HTML (monitoring only) and phone display (limited features)

Operating System & Upgrade

- Wind River's VxWorks®
- Software upgradeable via LAN FTP

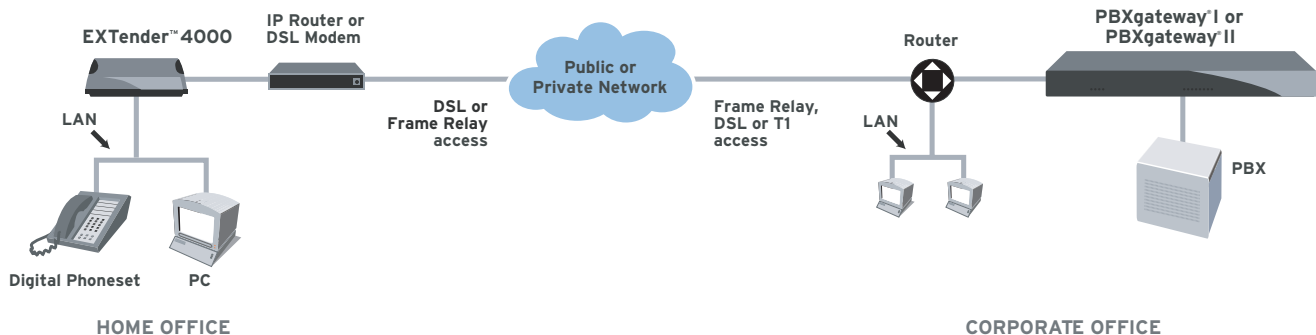
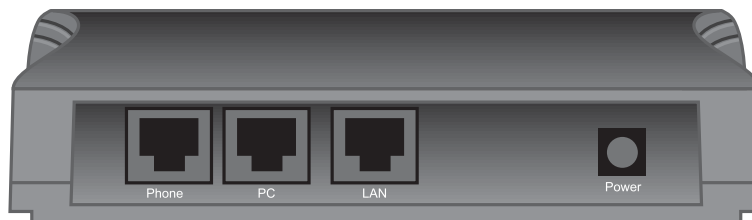
Regulatory Approvals

- FCC Part 15 Class B, NRTL/CSA, CE Mark, VCCI Class 1 and CIS PR 22 Class

Warranty

- One-year limited warranty for parts and labor including advance replacement when a unit is shipped back for repair. Effective January 1, 2004, advance replacement will be included on all products' and will be retroactive to products purchased between January 1 and December 31, 2003.

BACK VIEW



Product specifications subject to change without notice.

*MCK's IP-based products utilize Voice over IP (VoIP) technology to deliver remote voice solutions. The voice quality of these solutions is dependent on variables such as available bandwidth, network latency and quality of service (QoS) initiatives, all of which are controlled by the network and Internet service providers. Because these variables are not in MCK's control, it cannot guarantee the performance of the user's IP-based remote voice solution.

Software release 3.1 is required for direct termination of frame relay. MCK, the MCK logo, MCK EXTender, PBXgateway, RVP and RVPoIP are trademarks of Citel Technologies Ltd. Other brand and product names referenced herein are trademarks of their respective holders.

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